

FIG. 1
PRIOR ART

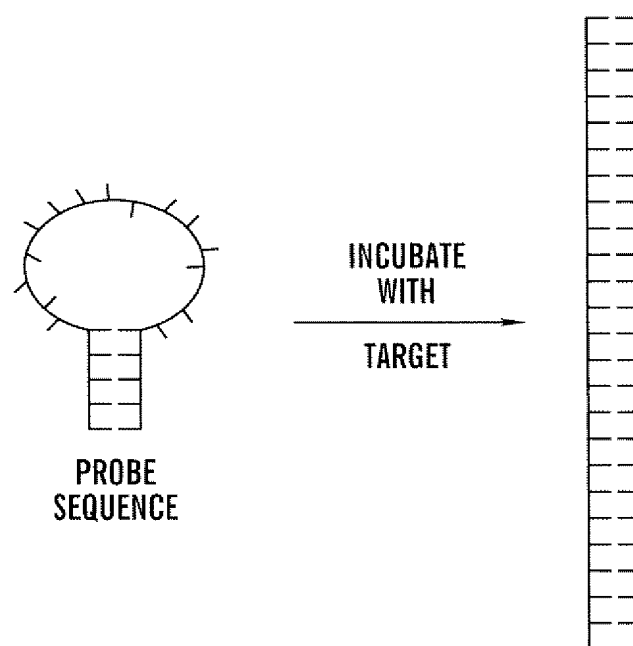


FIG. 2

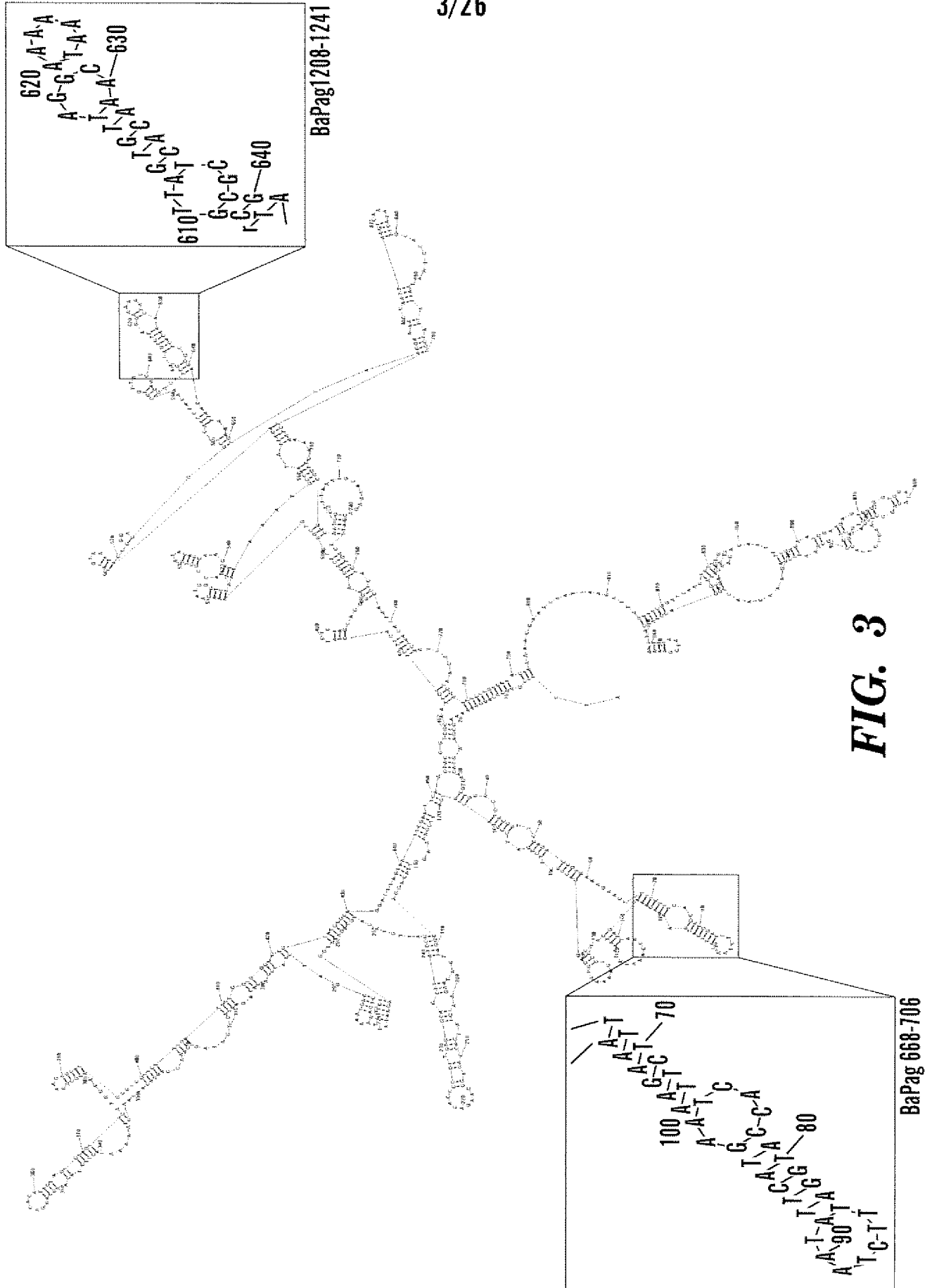


FIG. 3



FIG. 4A



Sequences producing significant alignments:		Score (bits)	E Value
<u>gi 20520075 gb AE011190.1 </u>	<u>Bacillus anthracis str. A2012 pl...</u>	78	7e-13
<u>gi 16031494 emb AJ413937.1 </u>	<u>BAN413937 Bacillus anthracis par...</u>	78	7e-13
<u>gi 16031492 emb AJ413936.1 </u>	<u>BAN413936 Bacillus anthracis par...</u>	78	7e-13
<u>gi 9280532 gb AF268967.1 </u>	<u>AF268967 B acillus anthracis plasmid...</u>	78	7e-13
<u>gi 4894216 gb AF065404.1 </u>	<u>Bacillus anthracis virulence plas...</u>	78	7e-13
<u>gi 10880952 gb AF306783.1 </u>	<u>Bacillus anthracis isolate BA102...</u>	78	7e-13
<u>gi 10880950 gb AF306782.1 </u>	<u>Bacillus anthracis plasmid pX01 ...</u>	78	7e-13
<u>gi 10880948 gb AF306781.1 </u>	<u>Bacillus anthracis isolate 33 pr...</u>	78	7e-13
<u>gi 10880946 gb AF306780.1 </u>	<u>Bacillus anthracis isolate BA103...</u>	78	7e-13
<u>gi 10880944 gb AF306779.1 </u>	<u>Bacillus anthracis isolate 28 pr...</u>	78	7e-13
<u>gi 10880942 gb AF306778.1 </u>	<u>Bacillus anthracis plasmid pX01 ...</u>	78	7e-13
<u>gi 143280 gb M22589.1 </u>	<u>BACPAG Bacillus anthracis cryptic pro...</u>	78	7e-13
<u>gi 18308294 gb AC104301.2 </u>	<u>Homo sapiens chromosome 3 clone ...</u>	42	0.038
<u>gi 19033969 gb AC069286.7 </u>	<u>Homo sapiens BAC clone RP11-261N...</u>	40	0.15
<u>gi 34849950 gb AC107065.5 </u>	<u>Bos taurus clone rp42-513g13, co...</u>	40	0.15
<u>gi 30962756 gb AC137820.11 </u>	<u>Medicago truncatula clone mth2-...</u>	38	0.60
<u>gi 30522931 gb AC123948.4 </u>	<u>Mus musculus chromosome 10 clone...</u>	38	0.60
<u>gi 22552809 emb AL671857.16 </u>	<u>Mouse DNA sequence from clone ...</u>	38	0.60
<u>gi 11414543 emb AL355352.16 </u>	<u>Human DNA sequence from clone ...</u>	38	0.60
<u>gi 7768715 dbj AP001713.1 </u>	<u>Homo sapiens genomic DNA, chromo...</u>	38	0.60
<u>gi 4827077 dbj AP000178.1 </u>	<u>Homo sapiens genomic DNA, chromo...</u>	38	0.60
<u>gi 4835635 dbj AP000266.1 </u>	<u>Homo sapiens genomic DNA, chromo...</u>	38	0.60
<u>gi 3132344 dbj AP000034.1 </u>	<u>Homo sapiens genomic DNA, chromo...</u>	38	0.60
<u>gi 4730836 dbj AP000102.1</u>	<u>Homo sapiens genomic DNA of 21q2 ...</u>	38	0.60
<u>gi 3947430 gb AC003090.1 </u>	<u>Homo sapiens BAC clone CTA-241I2 ...</u>	36	2.4

FIG. 5

 $(E_{\text{predict}} = -3.5 \text{ kcal/mol})$

nt=37

FIG. 7B


$$(E_{\text{predict}} = -6.1 \text{ kcal/mol})$$

iii-33

FIG. 7A

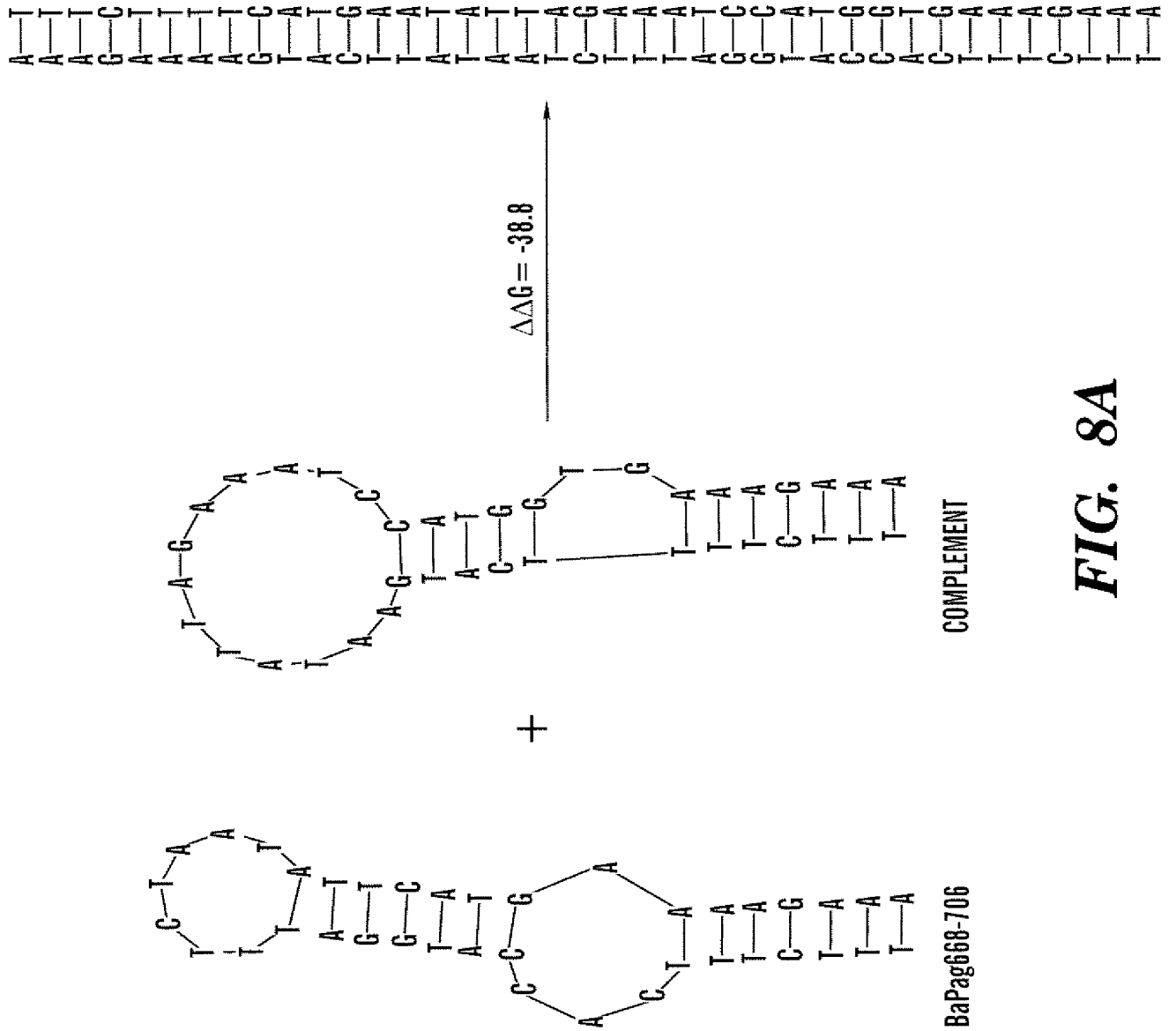


FIG. 8A

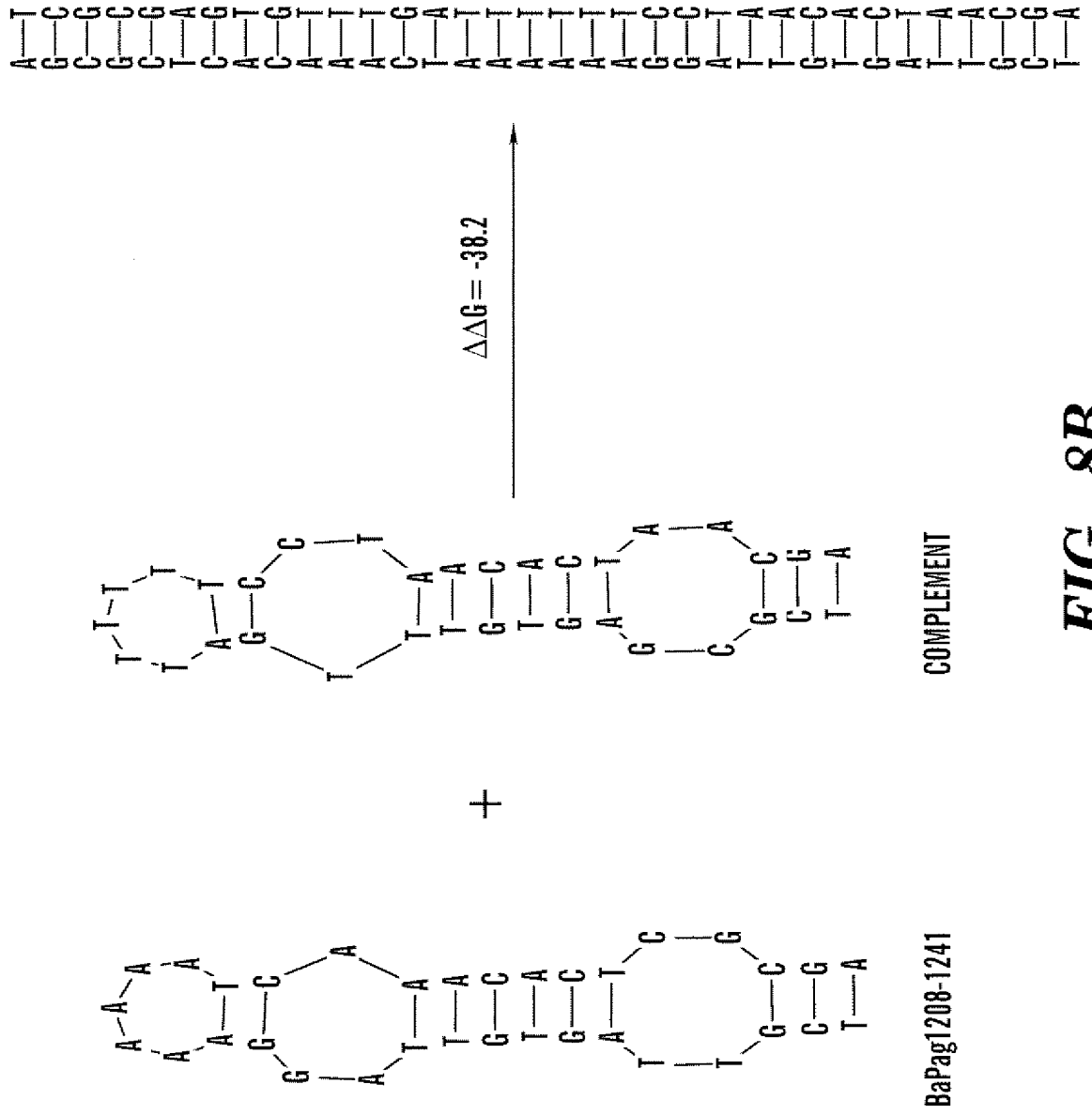


FIG. 8B

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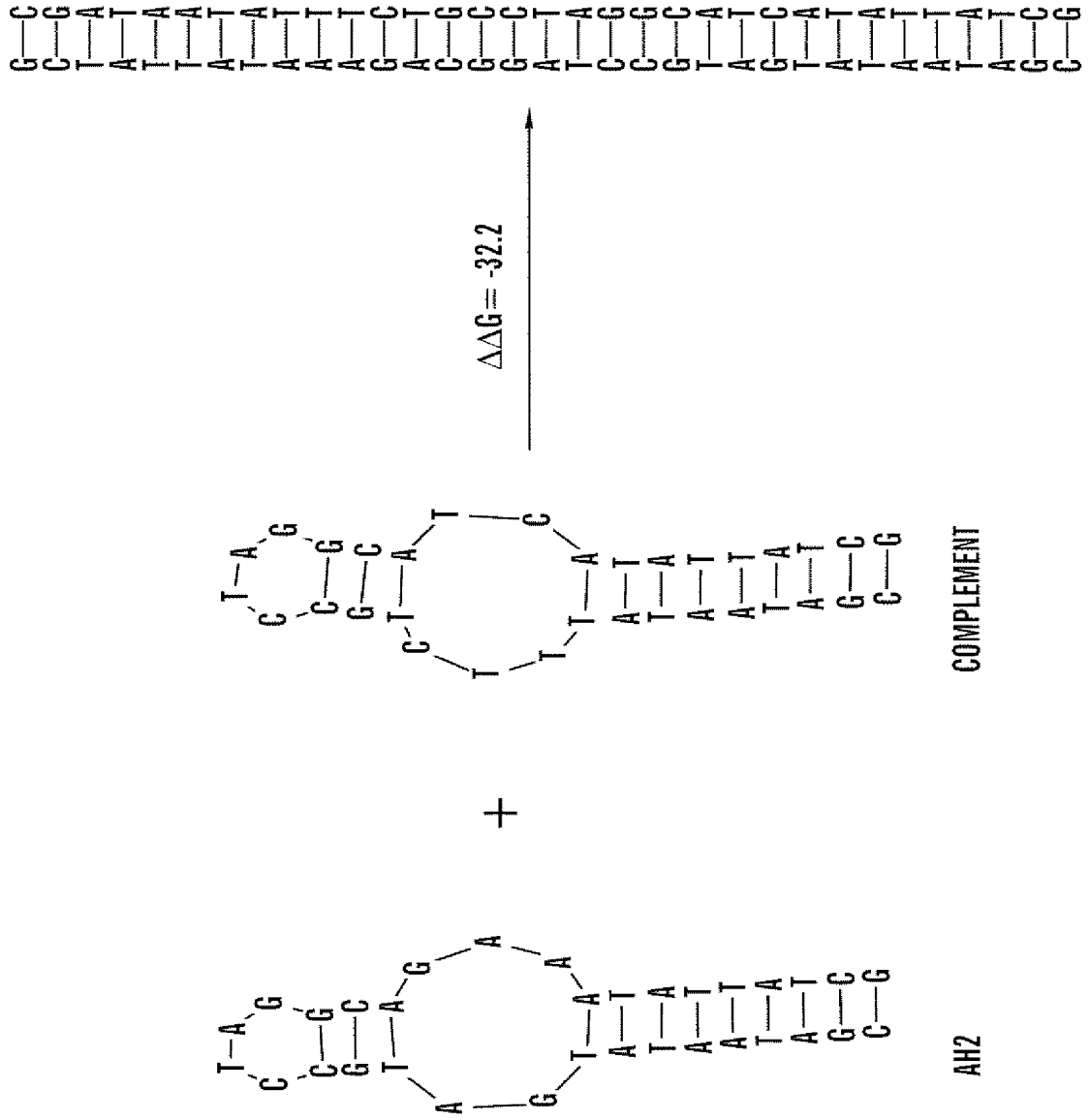


FIG. 8C



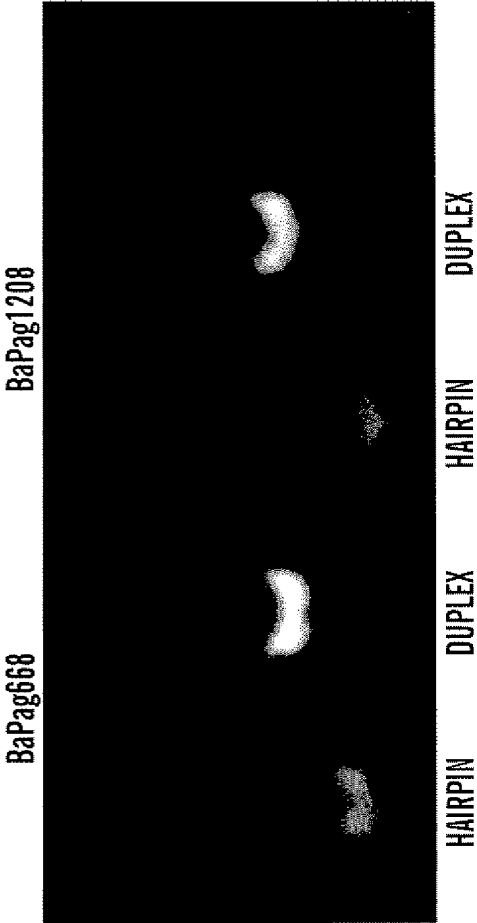
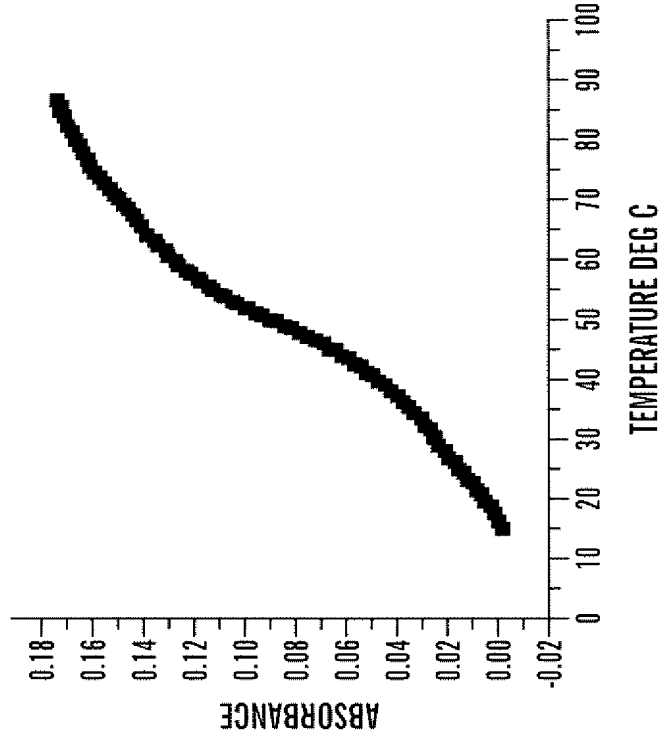
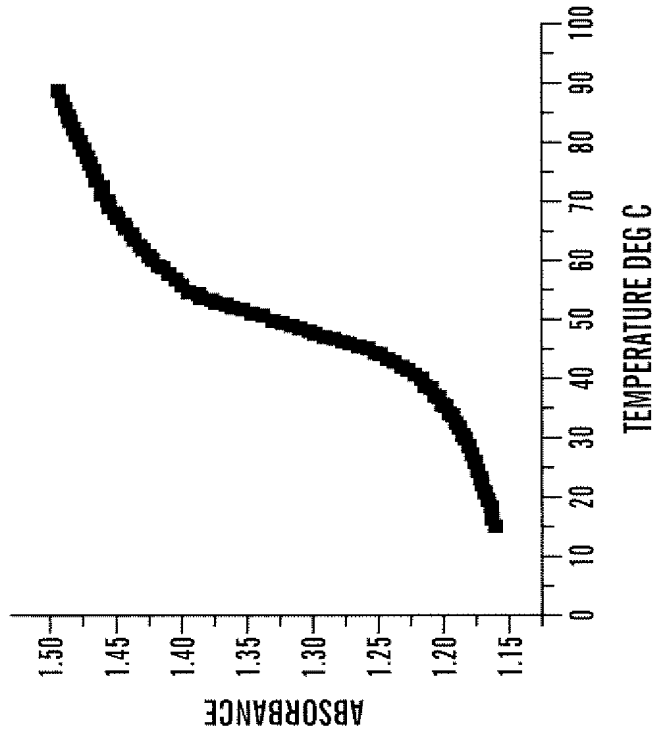


FIG. 9



BaPag1208-1241

FIG. 10B



BaPag668-706

FIG. 10A

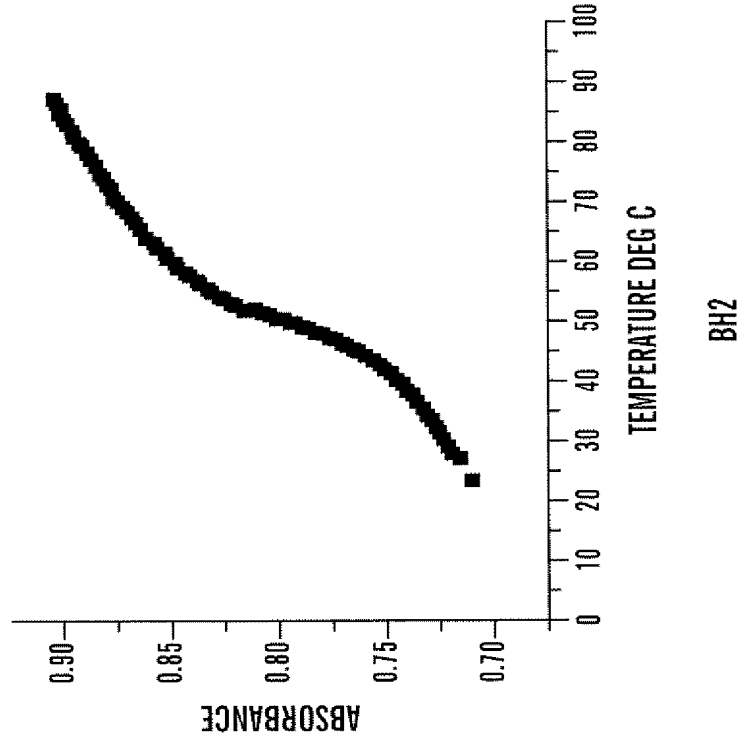


FIG. 10D

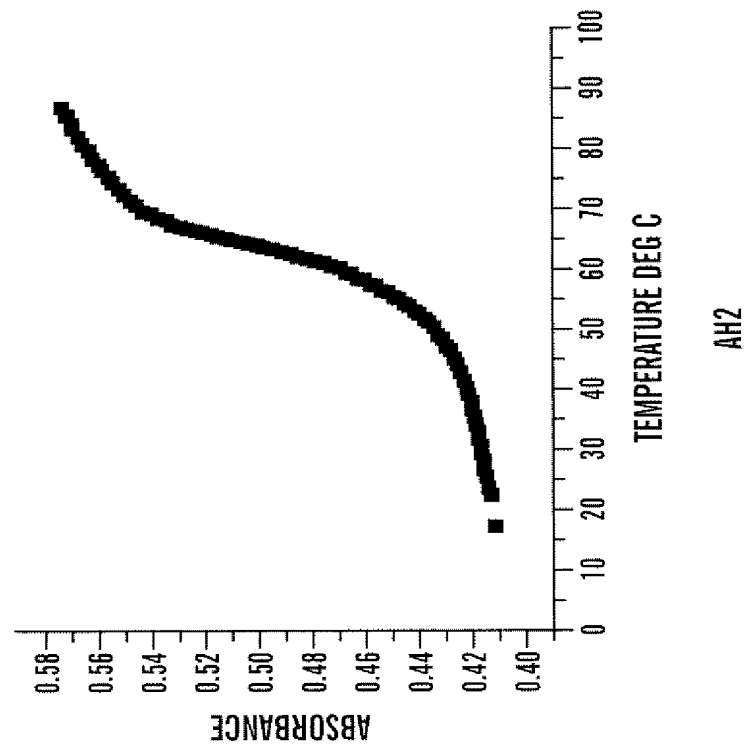
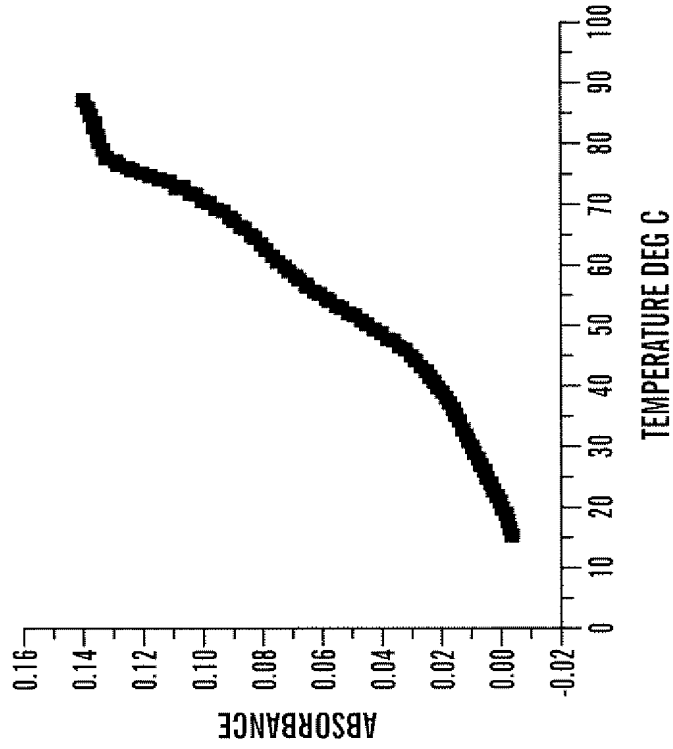
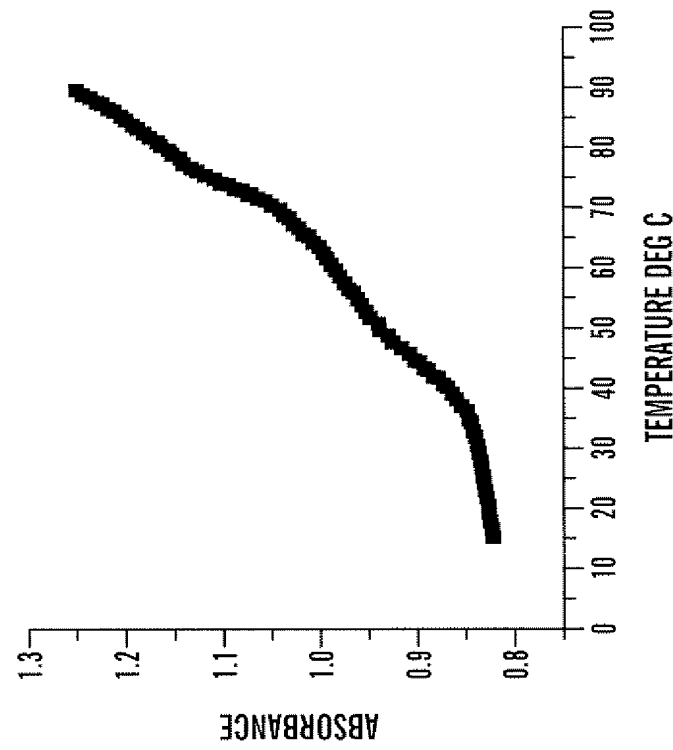


FIG. 10C



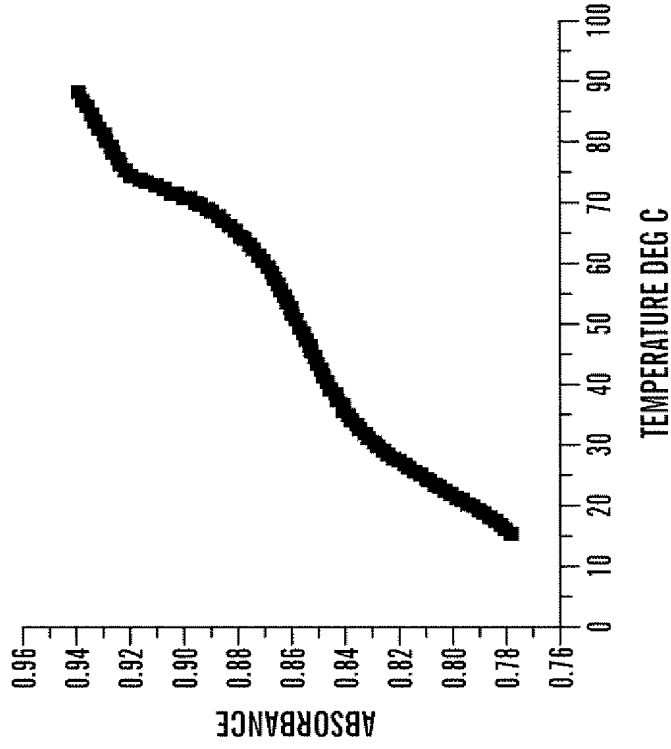
BaPag1208 WITH COMPLEMENT

FIG. 10F



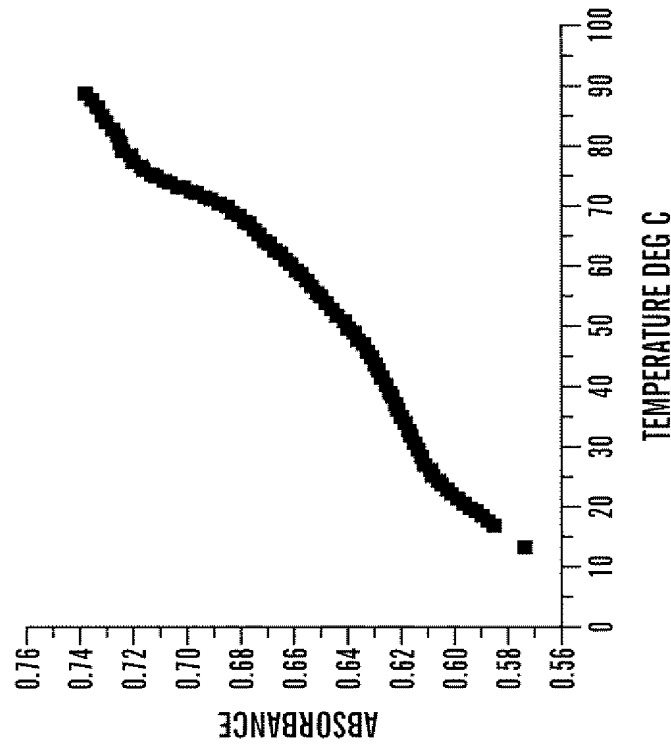
BaPag668 WITH COMPLEMENT

FIG. 10E



BH2 WITH COMPLEMENT

FIG. 10H



AH2 WITH COMPLEMENT

FIG. 10G

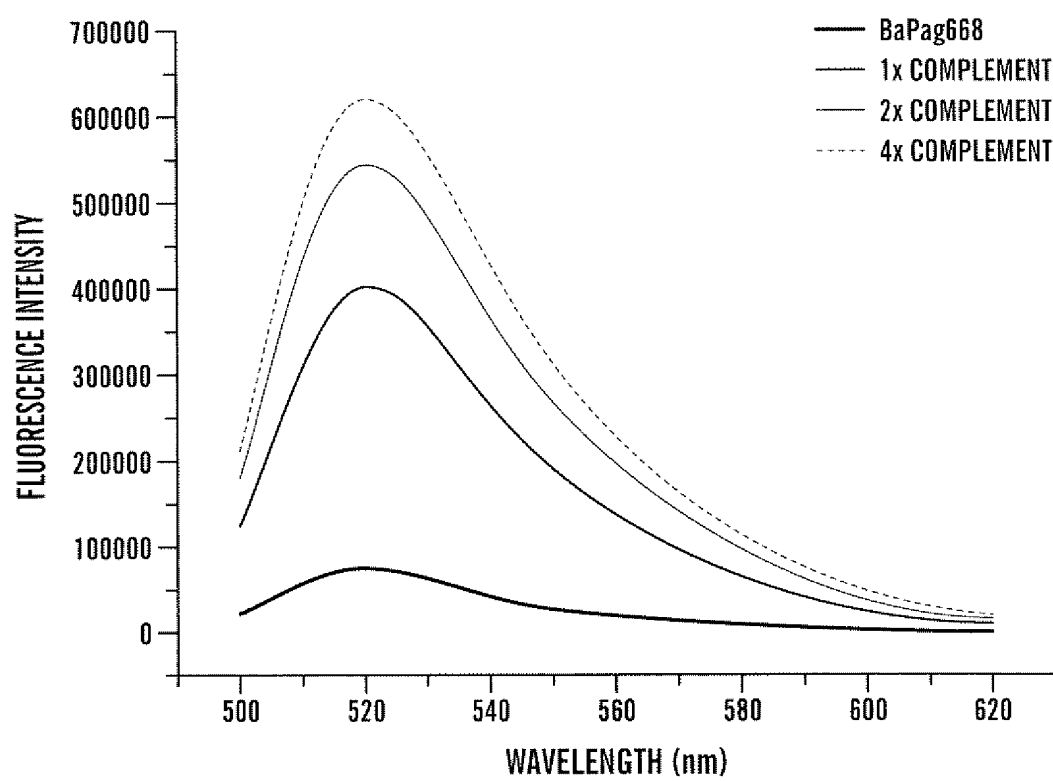


FIG. 11

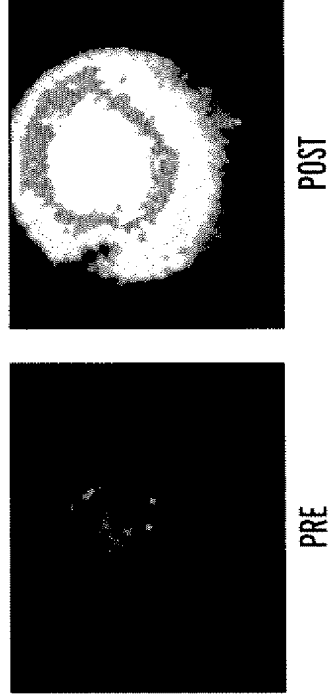
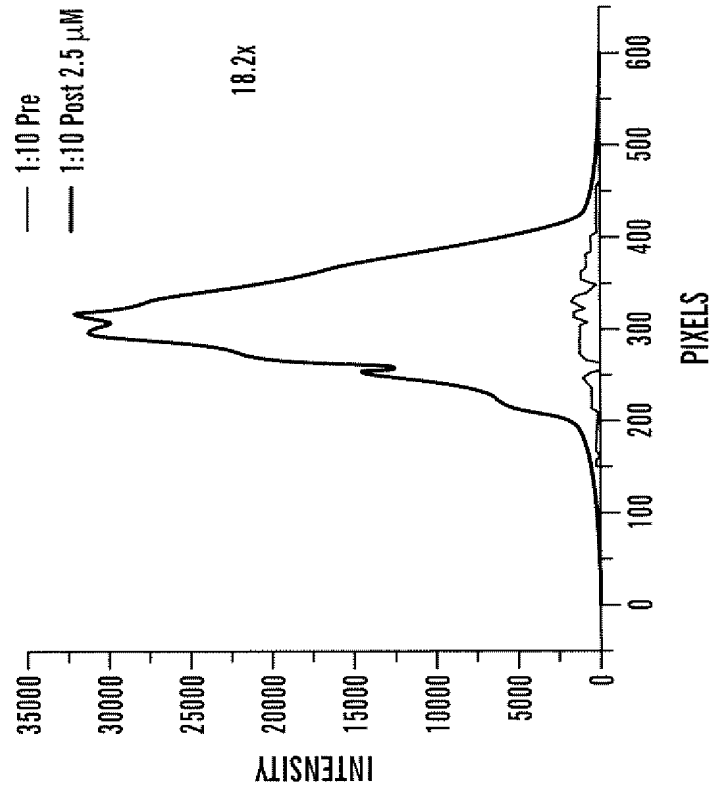


FIG. 12B **FIG. 12C**

FIG. 12A

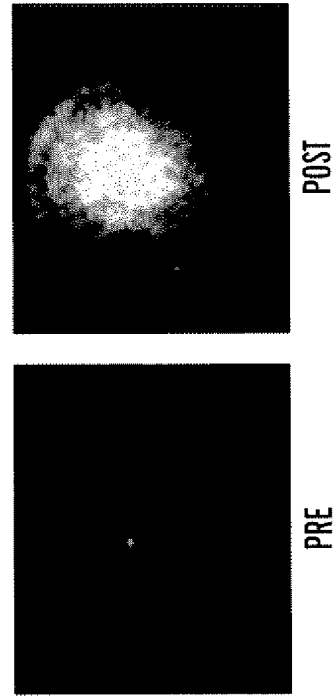
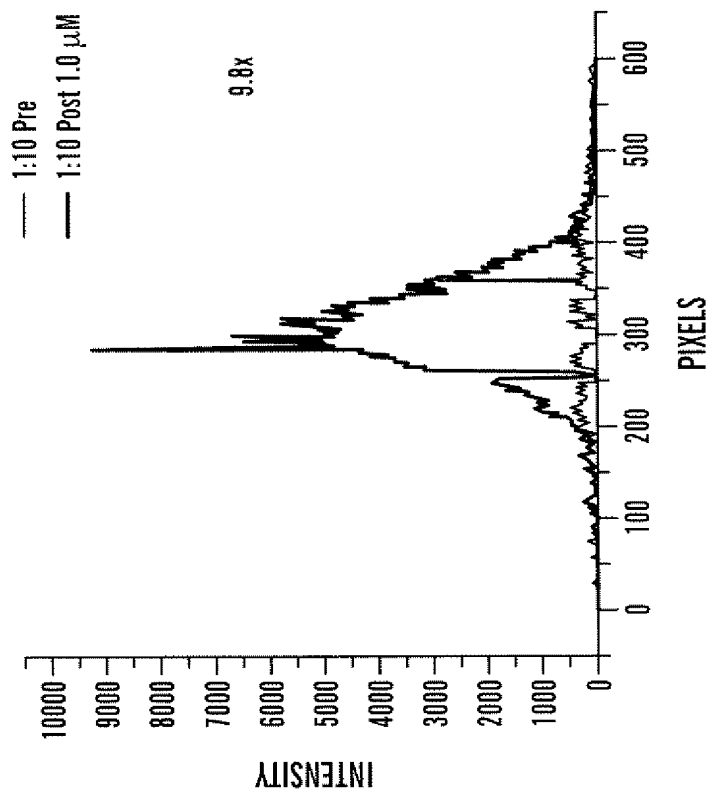


FIG. 12E *FIG. 12F*

FIG. 12D

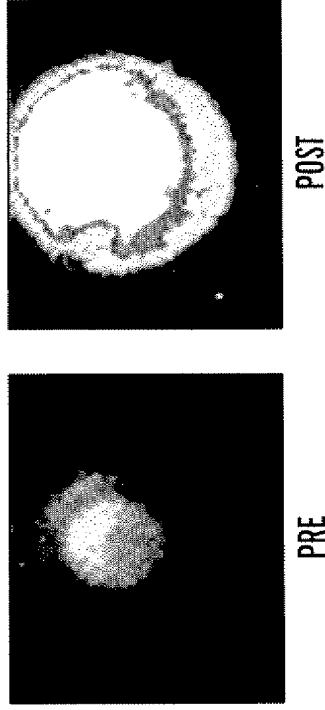
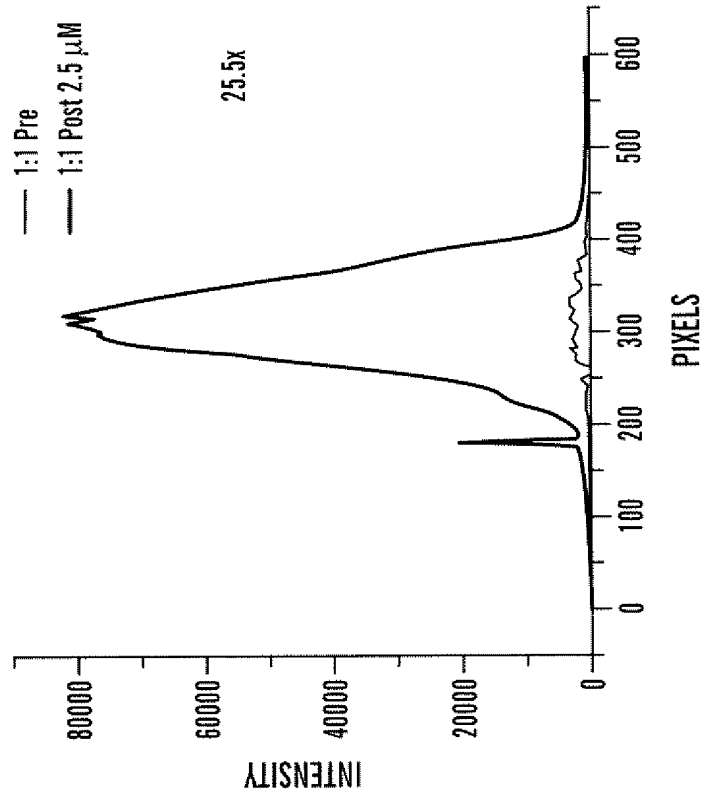


FIG. 13B *FIG. 13C*

FIG. 13A

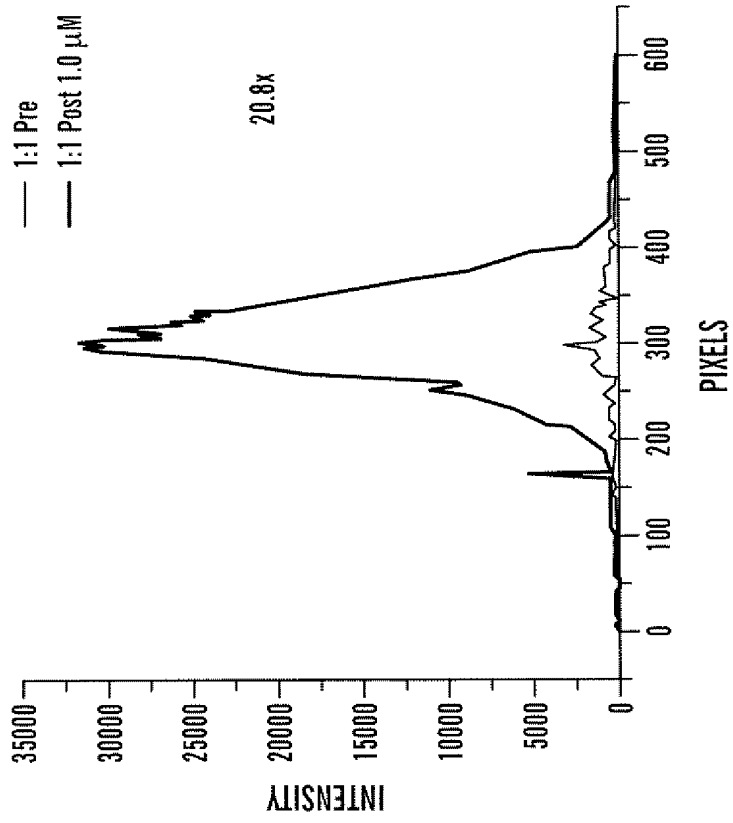


FIG. 13E **FIG. 13F**

FIG. 13D

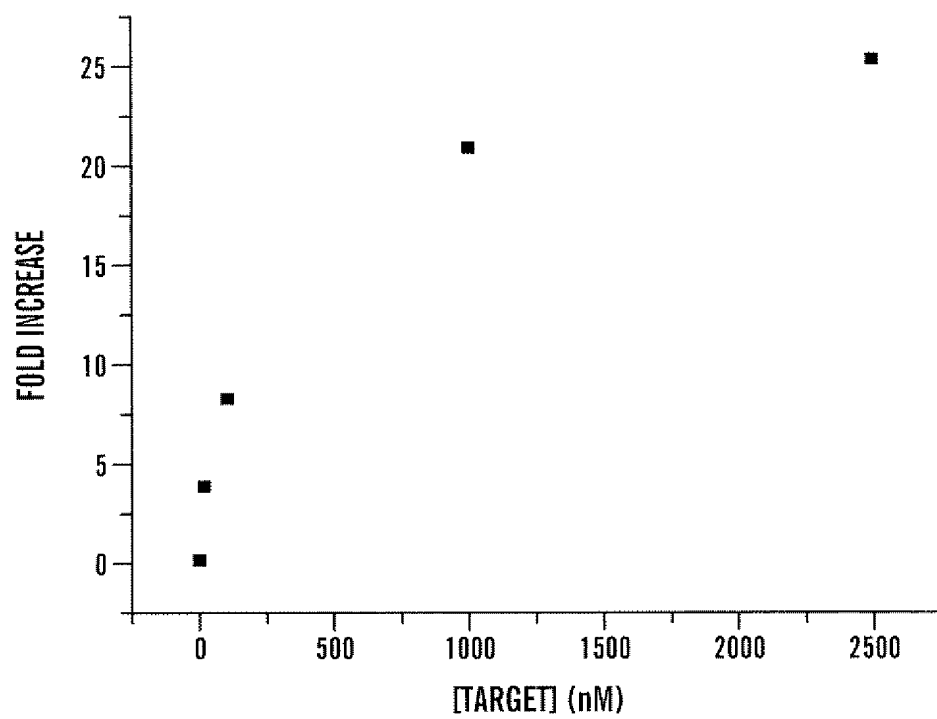
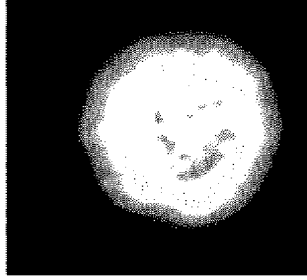
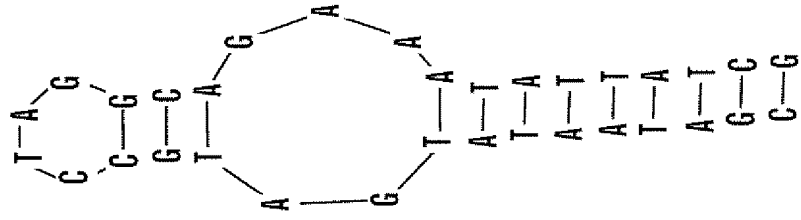
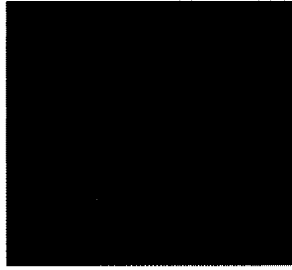


FIG. 14

AH2-RHODAMINE



POST



PRE

FIG. 15C

FIG. 15B

FIG. 15A

BH2-Cy5

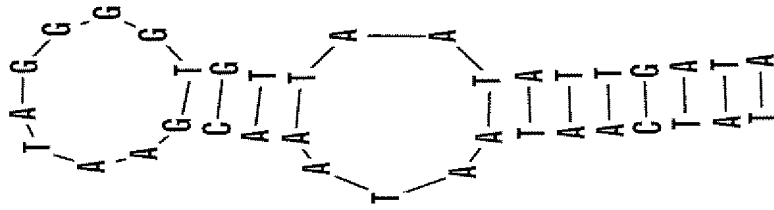
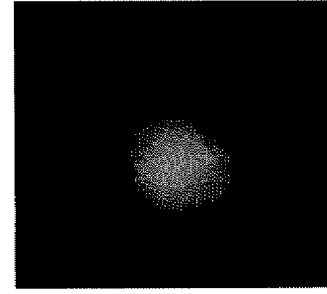
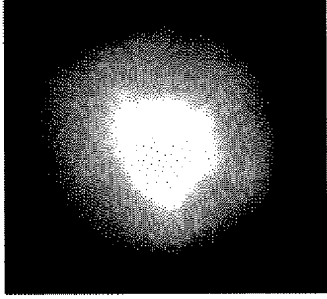


FIG. 15D



PRE

FIG. 15E



POST

FIG. 15F

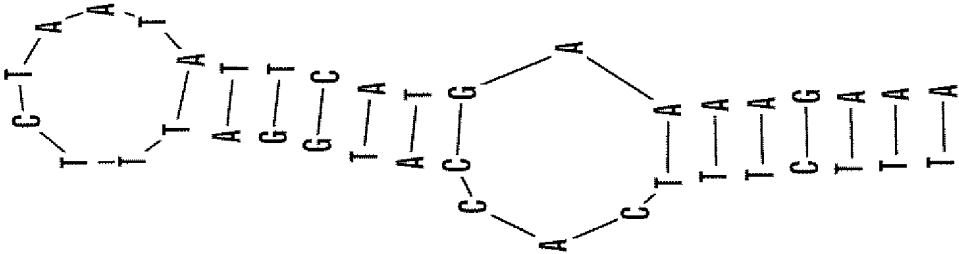
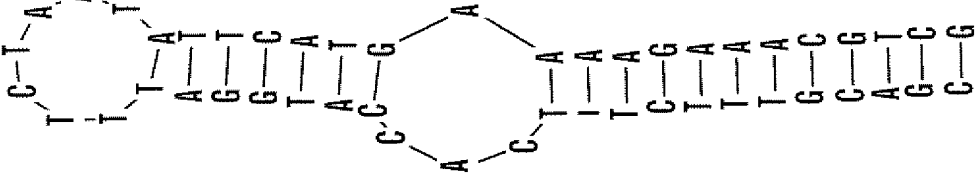
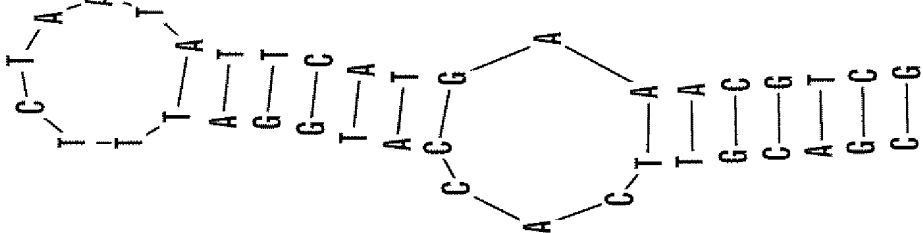
		
BaPag668	BaPag668 + CGACG	BaPag673 + CGACG
$\Delta G_{hp} = -4.4$	$\Delta G_{hp} = -12.9$	$\Delta G_{hp} = -7.3$
$\Delta G_{dup} = -43.2$	$\Delta G_{dup} = -43.2$	$\Delta G_{dup} = -32.5$
$\Delta \Delta G = -38.8$	$\Delta \Delta G = -30.3$	$\Delta \Delta G = -25.2$

FIG. 16A **FIG. 16B** **FIG. 16C**

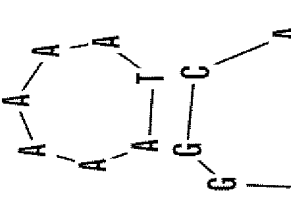
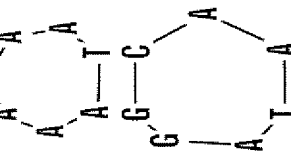
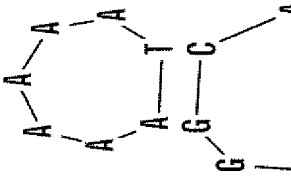
		
BaPag1208	BaPag1208 + CGACG	BaPag1213 + CGACG
$\Delta G_{hp} = -4.7$	$\Delta G_{hp} = -13.2$	$\Delta G_{hp} = -11.3$
$\Delta G_{dup} = -42.6$	$\Delta G_{dup} = -42.8$	$\Delta G_{dup} = -33.7$
$\Delta \Delta G = -38.2$	$\Delta \Delta G = -29.6$	$\Delta \Delta G = -22.4$

FIG. 17C

FIG. 17B

FIG. 17A